

IL
4/9/09

US EPA RECORDS CENTER REGION 5



466484



Molding Technologies, Inc

85 N. High St.

P.O. Box 730

Hebron, OH 43025

Ph. 740-929-2065

Fax 740-928-2409

FAX TRANSMITTAL

DATE: 4 9-09

FROM: John Perhek

TO: Joe Freda

COMPANY: _____

FAX #: 740-250-1743

NUMBER OF PAGES: 26 (Not including this cover sheet)

NOTES: Sheets attached for MSDS
for contents of drums

SHOULD ANY PROBLEMS HAVE OCCURRED DURING THE TRANSMISSION
OF THIS FAX, PLEASE CONTACT MOLDING TECHNOLOGIES AT 740-929-2065

Apr. 9. 2009 10:13AM

MOLDING TECHNOLOGIES

Vo. 3451 P. 2/28
P. 1

* * * Communication Result Report (Apr. 9. 2009 8:09AM) * * *

Fax Header) MOLDING TECHNOLOGIES

Date/Time: Apr. 9. 2009 7:45AM

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1) Hang up or line fail
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SHOULD ANY PROBLEMS HAVE OCCURRED DURING THE TRANSMISSION
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NUMBER OF PAGES: 26 (the number of pages and
NOTES: Shuts provided for pages
for contents of drawings

FAX#: 781-750-1743

COMPANY:

TO: Joe Fodda

FROM: John Fodda

DATE: 4/8/09

FAX TRANSMISSION

Molding Technologies, Inc.
211 Main St.
Malden, MA 02148
Tel: 781-750-1743
Fax: 781-750-1743

MOLDING
TECHNOLOGIES



ASHLAND
SAFETY DATA SHEET

Page: 9
Revision Date: 05/08/2007
Print Date: 8/9/2007
MSDS Number: R0391098
Version: 3.3

AROPOL™ Q 8000 RESIN 31600

IATA_C:
UN1866, Resin solution 3, III
CFR_ROAD:
UN1866, Resin solution 3, III
CFR_RAIL:
UN1866, Resin solution 3, III
CFR_INWTR:
UN1866, Resin solution 3, III
IMDG_INWTR:
UN1866, RESIN SOLUTION 3, III
IMDG_ROAD:
UN1866, RESIN SOLUTION 3, III
IMDG_RAIL:
UN1866, RESIN SOLUTION 3, III

Dangerous goods descriptions (if indicated above) may not reflect package size, quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

ACETALDEHYDE
BENZENE
ETHANOL
CATECHOL

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

BENZENE

SARA Hazard Classification	Fire Hazard
	Acute Health Hazard
	Chronic Health Hazard
	Reactivity Hazard

SARA 313 Component(s)		
STYRENE	100-42-5	50.625%

ASHLAND
SAFETY DATA SHEET

AROPOL™ Q 6585 RESIN 30070

103700
Q-6585
Page: 1
Revision Date: 02/20/2007

Print Date: 4/15/2007

MSDS Number: R0027833

Version: 1.5

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)
Product name	AROPOL™ Q 6585 RESIN	
Product code	30070	
Product Use Description	No data	

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, pungent, amber

WARNING! Unstable Reactive. Flammable Liquid, Toxic by inhalation, Moderate skin irritant, Moderate eye irritant, Carcinogen.

Potential Health Effects

Routes of exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

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AROPOL™ Q 6585 RESIN 30070

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, male reproductive system, auditory system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects

Carcinogenicity

There was no increase in cancer in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a carcinogen by the International Agency for Research on Cancer (IARC).

Reproductive hazard.

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Other information

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Styrene readily reacts with low concentrations of halogens (for example, fluorine, chlorine, bromine, or iodine) to form a tear-producing substance.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
STYRENE	100-42-5	>=30-<40%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

dry chemical, carbon dioxide (CO2), foam, water

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Hazardous combustion products

May form: carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

Flammability Class for Flammable Liquids

Flammable Liquid Class IC Flammable Liquid Class IC

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after

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AROPOL™ Q 6585 RESIN 30070

contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in closed containers in a dry, well-ventilated area. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

STYRENE		100-42-5
ACGIH	time weighted average	20 ppm
ACGIH	Short term exposure limit	40 ppm
NIOSH	Recommended exposure limit	50 ppm
	(REL):	
NIOSH	Recommended exposure limit	215 mg/m3
	(REL):	
NIOSH	Short term exposure limit	100 ppm
NIOSH	Short term exposure limit	425 mg/m3
OSHA Z2	time weighted average	100 ppm
OSHA Z2	Ceiling Limit Value:	200 ppm
OSHA Z2	Maximum concentration:	600 ppm

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s). OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm workplace limit on styrene. Members of the Styrene Information and Research Council (SIRC), Composites Institute (CI), Composite Fabricators Association (CFA), International Cast Polymers Association (ICPA) and National Marine Manufacturers Association (NMMA) have agreed to use either

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engineering controls, work practices or respiratory protection to achieve this voluntary limit for styrene.

Eye protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).
To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory protection

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	amber
Odour	pungent
Boiling point/range	293 °F / 145 °C
pH	No data
Flash point	84.99 °F / 29.44 °C
Evaporation rate	No data
Explosion limits	1.1 %(V) 6.1 %(V)
Vapour pressure	4.500000 mmHg @ 68 °F / 20 °C
Vapour density	3.6
Density	1.12 g/cm3 @ 77 °F / 25 °C 9.3 lb/gal @ 77 °F / 25 °C
Solubility	insoluble in water
Partition coefficient (n-octanol/water)	No data
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

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Stability

This material is unstable at elevated temperatures and pressures.

Conditions to avoid

None known.

Incompatible products

Avoid contact with: acids, aluminum chloride, halogens, iron chloride, metal salts, peroxides, strong alkalis, strong oxidizing agents

Hazardous decomposition products

May form: carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons

Hazardous reactions

Product can undergo hazardous polymerization. Avoid exposure to excessive heat, peroxides and polymerization catalysts.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

STYRENE

LD 50 Rat: 2,650 mg/kg

Acute inhalation toxicity

STYRENE

LC 50 Rat: 2800 ppm, 4 h

Acute dermal toxicity

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

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No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

INDG:

UN1866, RESIN SOLUTION 3, III

IATA P:

UN1866, Resin solution 3, III

IATA_C:

UN1866, Resin solution 3, III

CFR ROAD:

UN1866, Resin solution 3, III

CFR RAIL:

UN1866, Resin solution 3, III

CFR INWTR:

UN1866, Resin solution 3, III

IMDG INWTR:

UN1866, RESIN SOLUTION 3, III

INDG ROAD:

UN1866, RESIN SOLUTION 3, III

INDG RAIL:

UN1866. RESIN SOLUTION 3, III

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ASHLAND

SAFETY DATA SHEET

AROPOL™ O 6585 RESIN 30070

Page: 9

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15. REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer.

BENZENE

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

BENZENE

SARA Hazard Classification	Reactivity Hazard
<p> <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 13 <input type="checkbox"/> 14 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21 <input type="checkbox"/> 22 <input type="checkbox"/> 23 <input type="checkbox"/> 24 <input type="checkbox"/> 25 <input type="checkbox"/> 26 <input type="checkbox"/> 27 <input type="checkbox"/> 28 <input type="checkbox"/> 29 <input type="checkbox"/> 30 <input type="checkbox"/> 31 <input type="checkbox"/> 32 <input type="checkbox"/> 33 <input type="checkbox"/> 34 <input type="checkbox"/> 35 <input type="checkbox"/> 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Fire Hazard

Acute Health Hazard

Chronic Health Hazard

SARA 313 Component(s)

STYRENE	100-42-5	33.9898%
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OSHA Hazards

Unstable Reactive Flammable Liquid

Toxic by inhalation

Moderate skin irritant

Moderate eye irritant

Carcinogen

	Health	Flammability	Reactivity	Other
HMIS	2	3	2	
NFPA	2	3	2	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

ASHLAND
SAFETY DATA SHEET

AUG 17 2007

Revision Date: 05/08/2007

Print Date: 8/9/2007

MSDS Number: R0391098

Version: 3.3

AROPOL™ Q 8000 RESIN 31600

Page: 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone number	1-800-ASHLAND (1-800-274-5263)

Product name	AROPOL™ Q 8000 RESIN
Product code	31600
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of Exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye Contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin Contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get

ASHLAND

SAFETY DATA SHEET

Page: 2
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AROPOL™ Q 8000 RESIN 31600

into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, male reproductive system, auditory system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects

Carcinogenicity

There was no increase in cancer in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC).

Reproductive Hazard

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This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Other Information

Styrene readily reacts with low concentrations of halogens (for example, fluorine, chlorine, bromine, or iodine) to form a tear-producing substance.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
STYRENE	100-42-5	>=50-<=52%
STYRENE	100-42-5	>=50-<=52%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to Physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting.

Treatment: No information available.

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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water spray, carbon dioxide (CO₂), dry chemical, foam

Hazardous Combustion Products

May form: carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons

Precautions for Fire-Fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Polymerization will take place under fire conditions. If polymerization occurs in a closed container, there is a possibility it will rupture violently. Cool storage container with water, if exposed to fire.

Flammability Class for Flammable Liquids

Flammable Liquid Class I

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Environmental Precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for Cleaning Up

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent

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spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in closed containers in a dry, well-ventilated area. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

STYRENE		100-42-5
ACGIH	time weighted average	20 ppm
ACGIH	Short term exposure limit	40 ppm
NIOSH	Recommended exposure limit (REL):	50 ppm
NIOSH	Recommended exposure limit (REL):	215 mg/m3
NIOSH	Short term exposure limit	100 ppm
NIOSH	Short term exposure limit	425 mg/m3
OSHA Z2	time weighted average	100 ppm
OSHA Z2	Ceiling Limit Value:	200 ppm
OSHA Z2	Maximum concentration:	600 ppm

General Advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should

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consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s). OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm workplace limit on styrene. Members of the Styrene Information and Research Council (SIRC), Composites Institute (CI), Composite Fabricators Association (CFA), International Cast Polymers Association (ICPA) and National Marine Manufacturers Association (NMMA) have agreed to use either engineering controls, work practices or respiratory protection to achieve this voluntary limit for styrene.

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin and Body Protection

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protection

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	No data
Odour	pungent
Boiling point/range	293 °F / 145 °C
pH	No data
Flash point	84.9 °F / 29.4 °C Setta closed cup
Evaporation rate	> 1 (Ethyl Ether)
Explosion limits	1.1 %(V) 6.6 %(V)
Vapour pressure	0.853 kPa @ 77 °F / 25 °C

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Vapour density	1
Density	1.078 g/cm3 @ 77 °F / 25 °C 8.835 lb/gal @ 77.00 °F / 25.00 °C
Solubility	insoluble in water
Partition coefficient (n-octanol/water)	No data
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

This material is unstable at elevated temperatures and pressures.

Conditions to Avoid

Avoid heat, open flame, and prolonged storage at elevated temperatures., Avoid contact with:, excessive heat

Incompatible Products

Avoid contact with:, acids, aluminum chloride, halogens, iron chloride, metal salts, peroxides, strong alkalis, strong oxidizing agents

Hazardous Decomposition Products

May form:, carbon dioxide and carbon monoxide, toxic fumes, various hydrocarbons

Hazardous Reactions

Product can undergo hazardous polymerization., Avoid exposure to excessive heat, peroxides and polymerization catalysts.

Thermal Decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

STYRENE LD 50 Rat: 2,650 mg/kg

STYRENE LD 50 Rat: 2,650 mg/kg

Acute Inhalation Toxicity

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STYRENE

LC 50 Rat: 2800 ppm, 4 h

STYRENE

LC 50 Rat: 2800 ppm, 4 h

Acute Dermal Toxicity

12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Acute and Prolonged Toxicity to Fish
No data

Acute Toxicity to Aquatic Invertebrates
No data

Environmental Fate and Pathways
No data

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

IMDG:
UN1866, RESIN SOLUTION 3, III
IATA_P:
UN1866, Resin solution 3, III

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OSHA Hazards

Toxic by inhalation
Moderate skin irritant
Flammable Liquid
Moderate eye irritant
Carcinogen
Unstable Reactive

	Health	Flammability	Reactivity	Other
HMIS	2	3	2	
NFPA	2	3	2	

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

RECEIVED

MAR 23 2001

130300
MATERIAL SAFETY DATA SHEET *mod E*

HEBRON, OHIO

Ashland

Page 001

Date Prepared: 02/21/01

Date Printed: 03/17/01

MSDS No: 304.0301088-003.002

AROPOL MOD E ACC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: AROPOL MOD E ACC

Product Code: 3906076

General or Generic ID: INHIBITOR SOLUTION

Company

Ashland
Ashland Distribution Co. &
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
24 hours everyday

Regulatory Information Number:

1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
DIALLYL PHTHALATE	131-17-9	93.0- 97.0
PARA-BENZOQUINONE	106-51-4	5.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: skin blistering abnormal coloring of the skin.

Swallowing

Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation

Breathing of vapor or mist is possible. Breathing this material may be harmful.

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), cough, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), shortness of breath, visual impairment (including blindness), and death.

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AROPDL MOD E ACC

Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: blood abnormalities, liver abnormalities, lung damage.

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver.

5. FIRE FIGHTING MEASURES

Flash Point

330.0 F (165.5 C) COC

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MATERIAL SAFETY DATA SHEET

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Explosive Limit

No data

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: acid vapors, carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

While not normally combustible, if water content is lost (as in a fire), material may release flammable vapors if exposed to high temperature. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air, may travel long distances along the ground before igniting/flashback to vapor source.

Extinguishing Media

regular foam, water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 2, Flammability - 1, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.

Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

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AROPOL MOD E ACC

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves such as: neoprene, To prevent repeated or prolonged skin contact, wear impervious clothing and boots..

Respiratory Protections

If overexposure has been determined or documented, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier.) Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Exposure Guidelines

Component

DIALLYL PHTHALATE (131-17-9)
No exposure limits established

PARA-BENZOQUINONE (106-51-4)
OSHA PEL 0.100 ppm - TWA
OSHA VPCL 0.100 ppm - TWA
ACGIH TLV 0.100 ppm - TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 315.0 - 329.0 F (157.2 - 165.0 °C) @ 760 mmHg

Vapor Pressure

(for component) 2.400 mmHg @ 68.00 F

Specific Vapor Density

8.800 @ AIR=1

Specific Gravity

1.100 @ 77.00 F

Liquid Density

9.150 lbs/gal @ 77.00 F
1.100 kg/l @ 25.00 C

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AROPOL MOD E ACC

Percent Volatiles
95.0 %

Evaporation Rate
No data

Appearance
VISCIOUS

State
LIQUID

Physical Form
HOMOGENEOUS SOLUTION

Color
AMBER

Odor
MILD LACHRYMATORY

pH
Not applicable

Solubility in Water
NEGLECTIBLE

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product can undergo hazardous polymerization. Avoid exposure to excessive heat, peroxides and polymerization catalysts.

Hazardous Decomposition
May form: acid vapors, carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: strong acids, strong alkalis, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

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MATERIAL SAFETY DATA SHEET

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AROPOL MOD E ACC

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your Waste Management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., 9, UN3082, III

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

NOS Component:

PARA-BENZOQUINONE

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

200

BENZOQUINONE

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component

RQ (lbs)

QUINONE

10

SARA 302 Components - 40 CFR 355 Appendix A

Not applicable

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire() Reactive(X) Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)

CAS Number %

QUINONE

106-51-4 5.00

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OSHA Process Safety Management 29 CFR 1910
None listed

EPA Accidental Release Prevention 40 CFR 68
None listed

International Regulations
Inventory Status
DSL (CANADA) The intentional ingredients of this product are listed.

State and Local Regulations
California Proposition 65
None

New Jersey RTK Label Information
P-BENZOQUINONE 106-51-4

Pennsylvania RTK Label Information
1,2-BENZENEDICARBOXYLIC ACID, DI-2-PROPE 131-17-9
2,5-CYCLOHEXADIENE, 1,4-DIONE- 106-51-4

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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